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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/297,399	04/29/1999	MASARU MIYAMOTO	3404/0F546-U	9716

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08/13/2002

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EXAMINER

SHOSHO, CALLIE E

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 08/13/2002

23

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/297,399

Examiner

Callie E. Shosho

Applicant(s)

MIYAMOTO, MASARU

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. All outstanding rejections are overcome by applicant's amendment filed 6/3/02. The new grounds of rejection as set forth in paragraphs 2-7 below are necessitated by applicants' amendment and thus, the following rejection is final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to recite that the hydrophobic group of the polymer is selected from the group consisting of "a non-aromatic cyclic hydrocarbon". Similarly, claim 6 has been amended to recite that the hydrophobic group is a "non-aromatic cyclic hydrocarbon". However, the phrase "non-aromatic cyclic group clearly signifies a "negative" or "exclusionary" limitation for which applicants have no support in the original disclosure. Negative limitations in a claim which do not appear in the specification as filed introduce new concepts and violate the description requirement of 35 USC 112, first paragraph. *Ex parte Grasselli, Suresh, and Miller* 393, 394 (Bd. Pat. App. and Inter. 1983); 783 F.2d 453. In *Grasselli*, the courts upheld that "the express exclusion of certain elements not discussed in the original specification together with the

implicit inclusion of all other elements not originally in the original specification constitutes new matter, i.e. lacks description in the original specification and violates the first paragraph of 35 USC 112”.

As support for the insertion of the phrase “non-aromatic cyclic hydrocarbon in claims 1 and 6, applicant points to page 9, lines 14-18 of the present specification. This portion of the specification discloses that the hydrophobic group “includes linear and cyclic hydrocarbon groups, an aromatic hydrocarbon group...”. While applicant argues that the separate disclosure of cyclic hydrocarbon and aromatic hydrocarbon indicate that applicant intended the phrase cyclic hydrocarbon to cover non-aromatic cyclic hydrocarbon groups, the fact remains that the phrase cyclic hydrocarbon does in fact encompass aromatic hydrocarbon. There is no disclosure in the specification that aromatic hydrocarbons are excluded from cyclic hydrocarbon group.

4. **NOTE:** If applicant were to amend claim 1 to remove the phrase “non-aromatic” or to insert the previous claim language present before the filing of this amendment, i.e. “hydrophobic group selected from the group consisting of a linear hydrocarbon, a cyclic hydrocarbon, an aromatic hydrocarbon..”, in order to overcome the above rejection under 35 USC 112, it is noted that the rejections of record, as set forth in paragraphs 2-8 of the office action mailed 12/3/01, will be re-instated.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-2, 5, and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 6346014 in view of Shay et al. (U.S. 5,478,602).

JP 6346014 discloses a water based ink composition for ball-point pens which comprises pigment, polar solvent comprising water and other solvent (such as ethylene glycol), pH controlling agent, and 0.01-10% thickener which swells in an alkaline medium resulting in an increase in viscosity of the ink (claim 1, page 4, line 23-page 5, line, page 5, lines 12-13, page 7, lines 5-14, page 7, line 24-page 8, line 5, and page 8, lines 9-10). Although there is no explicit disclosure that the thickener is associative, given that the thickener swells in an alkaline medium as presently claimed, it is clear that the thickener is inherently associative as presently claimed.

The difference between JP 6346014 and the present claimed invention is the requirement in the claims of specific type of thickener.

Shay et al. disclose the use of associative thickener comprising carboxyl group and hydrophobic group wherein the hydrophobic group includes halogenated alkyl, organosilicon, and fluorinated carbon groups. It is disclosed that the thickeners are suitable for use in any aqueous composition including ink. The motivation for using such thickener is that it is highly efficient, better resists hydrolysis, and provides better rheology (col.1, lines 51-56, col.2, lines 55-57 and 62-64, col.3, lines 4-5 and 45-60, col.5, lines 66-67, col.6, lines 39 and 53-55, col.7, lines 26-28 and 39, col.13, line 10).

In light of the motivation for using specific associative thickener disclosed by Shay et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such thickener in the ink of JP 6346014 in order to produce an ink which has desired rheology, and thereby arrive at the claimed invention.

7. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 6346014 in view of Shay et al. as applied to claims 1-2, 5, and 7-9 above, and further in view of either Kobayashi et al. (U.S. 4,822,417) or JP 54138732.

The difference between JP 6346014 in view of Shay et al. and the present claimed invention is the requirement in the claims of a pigment surface treated with a resin and/or surfactant.

Kobayashi et al., which is drawn to a writing ink composition, disclose the use of pigments surface treated with resins. The motivation for using such pigments is that they are preferred for their dispersability, stability, and workability (col.2, lines 26-33).

Alternatively, JP54138732, which is drawn to a writing ink composition, discloses the use of pigments surface treated with resin. The motivation for using such pigments is that impart excellent stability and water-resistance to the ink compositions(claim, page 1, second paragraph, and page 2, first full paragraph).

In light of the motivation for using a surface-treated pigment disclosed by either Kobayashi et al. or JP 54138732 as described above, it therefore would have been obvious to one of ordinary skill in the art to use this type of pigment in the ink of JP 6346014 in order to produce an ink that has excellent dispersability, stability, and water-resistance, and thereby arrive at the claimed invention.

Response to Arguments

8. Applicant's arguments filed 6/3/02 have been considered. Specifically, applicant argues that none of the thickeners disclosed by JP 6346014 are encompassed by the present claims and

that while Shay et al. disclose thickeners for inks, given that inks are but one possible application of many disclosed by Shay et al. and given that Shay et al. does not teach how thickeners could successfully be incorporated into ink compositions, there is no motivation to combine JP 6346014 with Shay et al.

It is agreed that there is no disclosure in JP 6346014 of thickener comprising hydrophobic group as presently claimed. This is why JP 6346014 is used in combination with Shay et al. Although Shay et al. lists many possible uses for the disclosed thickener, the fact remains that Shay et al. disclose that the thickeners are employed for controlling viscosity of any aqueous based composition including inks. This would clearly provide motivation for one of ordinary skill in the art to use Shay et al.'s thickeners in JP 6346014.

Given that JP 6346014 discloses ink comprising thickener which is carboxylated acrylic resin and given that Shay et al. disclose thickeners comprising carboxyl and acrylic groups as well as hydrophobic groups such as halogenated alkyl, organosilicon, and fluorinated carbon groups and further given that Shay et al. disclose that such thickeners are highly efficient, have better resists hydrolysis, and provide better rheology, it is the examiner's position that there is good motivation to combine JP 6346014 with Shay et al.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie Shosho
August 9, 2002

Vasu Jagannathan
VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
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